

METHOD OF USE OF MONOMERIC INSULIN AS A MEANS
FOR IMPROVING THE REPRODUCIBILITY OF INHALED INSULIN

ABSTRACT OF THE DISCLOSURE

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The need for the delivery of insulin by injection can be reduced or eliminated by delivering an aerosolized monomeric insulin formulation. Repeatability of dosing and more particularly the repeatability of the blood concentration *versus* time profile is improved relative to regular insulin. The blood concentration *versus* time profile is substantially unaffected by specific aspects of the patient's breathing maneuver at delivery. Further, the rate at which blood glucose is lowered is increased by the use of monomeric insulin. Particles of insulin and in particular monomeric insulin delivered to the surface of lung tissue will be absorbed into the circulatory system. The monomeric insulin may be a dry powder but is preferably in a liquid formulation delivered to the patient from a hand-held, self-contained device which automatically releases an aerosolized burst of formulation. The device includes a sensor which is preferably electronic which measures inspiratory flow and volume which measurement can be used to control the point of drug release.

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